

Work Order ID 134714

Thursday, July 16, 2015 3:15:45 PM

134714

Sheet 13

Sept 18

Page 1

Item ID: D212-805-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Pod Modification

Start Date: 7/17/15 Start Qty: 1.00

1

Cust Item ID:

Required Date: 8/07/15 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: AA Date: 15-7-16 Tooling: _____ Date: _____Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
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D212-805	A
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100

Document Control

0.00

100

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile & type labels per PPP D212-601-142
CHG001

110

0.00

110

Small Fab

Memo

0.00

Small Fab

1- Locate DT9667 jig on pod lid as per dwg, open holes as per dwg (1.00" holes
is open with a hole saw)
2- Seal all edges with cyanoacrylate glueSMB
15/11/18

120

QC5- Inspect part completeness to step on W/O

0.00

120

QC

Memo

0.00

Quality Control

J
15/11/23

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: <u>134714</u> Part No: <u>2212-805-011</u> NCR No. _____		DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Cross tube ☐ Water Jet ☐ Engineering ☐ Machining ☐ Small Fab ☐ Prod. Eng. Coord. ☐ Quality ☐ Thermoforming ☒ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☐ Composite ☒ Supplier ☐							
Date : <u>15.11.15</u>		Step #: <u>130</u>		QTY Effective : <u>①</u>			MRB (QSI042) Approval <u>A.P.</u> <u>15.11.15</u>				
Description Work Order Deviation <u>04177-1 INSTALLATION INTERFERENCE WITH</u> <u>POD RIBS</u>				Disposition <u>ACCEPTABLE TO MOVE DIMENSION</u> <u>± 0.25" IN EITHER DIRECTION TO</u> <u>PREVENT INTERFERENCE</u>				Completed By <u>SM</u> <u>15/11/15</u> Lead hand / Supervisor Approval Verification <u>DAS</u> <u>9</u> <u>9-89</u> <u>16.01.15</u> QC / QA Coordinator Approval <u>L</u> <u>16/01/15</u>			
Root Cause Environment ☐ No Re-verification ☐ Design ☐ Operator ☐ Doc/Data ☐ Offset/Setup ☐ Equip/Tooling ☐ Supplier ☐ Handling/Pre ☐ Training ☐ Material ☐ Use for Testing ☐ Internal Transport ☐ Poor Information ☐ Tribal Knowledge ☐ Rushing ☐ LOA ☐ Product Improvement ☐ Substation ☐ Process Improvement ☐ Past Expiry Date ☐ ☒ Manufacturing Process Misidentified ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Temperature/Cure ☐ Power Loss/Surge ☐ Positioned Wrong ☐ Bending ☐ Set-up ☐ Folio/Program ☐ Outside Dimensions ☐ Centre Not Concentric ☐ BOM/Route ☐ Grain ☐ Over/Under tolerance ☐ Cracks ☐ Broken/Damage/Defect ☐ Weld ☐ Part Incorrect ☐ Crimp/Kink/Ripple/Wave ☐ Inspection Incomplete/Unqualified ☐ Wrong Stock Pulled ☐ Part Lost/Missing ☐ Cuffs ☐ Contamination ☐ Out of Sequence ☐ ☒ Part Moved Crushing ☐ Countersink ☐ Off-set ☐ Drawing ☐ Heat Treat ☐ Cut Too Short ☐ Misabeled ☐ Finish ☐ Wave/Twist in Tube ☐ Instructions Incomplete/Unclear ☐ Fit/Function ☐ Misread ☐ Marks/Chatter ☐ Drill Holes ☐ Misaligned/off center ☐ Turning Sequence ☐				OTHER : _____			

Work Order ID 134714

Thursday, July 16, 2015 3:15:45 PM

134714

Page 2

Item ID: D212-805-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Pod Modification

Start Date: 7/17/15 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 8/07/15 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130									
Small Fab									
Small Fab	Memo Install D4175-1 pod Gps doubler (bond with sikaflex) ***Use DT9667 jig to hold doubler in place while sikaflex cures*** A/R Sikaflex Batch: <u>M133407</u> exp date: <u>2/16</u>	0.00							
140	QC5- Inspect part completeness to step on W/O	0.00							
140									
QC	Memo	0.00							
Quality Control									
150		0.00							
150									
Small Fab	Memo	0.00							
Small Fab	1- Locate DT9668 jig on aft, inside half of rear pannel on pod as per dwg 2- Drill out holes to .191" (6 places) use bolts .1875" to hold jig in place. 3- Use router to remove inner square 4- Seal all edges with cyanoacrylate glue								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Cross tube ☐ Water Jet ☐ Engineering ☒ Machining ☐ Small Fab ☐ Prod. Eng. Coord. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☐ Composite ☒ Supplier ☐							
Date : 15.11.16		Step #:		QTY Effective :			MRB (QSI042) Approval A.P. 15.11.16				
Description Work Order Deviation				Disposition				Completed By			
Exposed fiberglass strands in various locations				Sand area and apply single layer of 7725 Fiberglass, with EPOcast 50 A/B as per DEPARTMENT 470-36/411/510440-1 OVERLAP MINIMUM 1" OVERLAP. IF required smooth at transition using Hysol EA 934 thickened with microballoons oil-apply finish.				Lead hand / Supervisor Approval Verification			
SEE NEXT PAGE A.P. 15.11.16								QC / QA Coordinator Approval			
Root Cause Environment ☐ No Re-verification ☐ Design ☐ Operator ☐ Doc/Data ☐ Offset/Setup ☐ Equip/Tooling ☐ Supplier ☐ Handling/Pre ☐ Training ☐ Material ☐ Use for Testing ☐ Internal Transport ☐ Poor Information ☐ Tribal Knowledge ☐ Rushing ☐ LOA ☐ Product Improvement ☐ Substation ☐ Process Improvement ☐ Past Expiry Date ☐ Manufacturing Process ☐ Misidentified ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Temperature/Cure ☐ Power Loss/Surge ☐ Positioned Wrong ☐ Bending ☐ Set-up ☐ Folio/Program ☐ Outside Dimensions ☐ Centre Not Concentric ☐ BOM/Route ☐ Grain ☐ Over/Under tolerance ☐ Cracks ☐ Broken/Damage/Defect ☐ Weld ☐ Part Incorrect ☐ Crimp/Kink/Ripple/Wave ☐ Inspection Incomplete/Unqualified ☐ Wrong Stock Pulled ☐ Part Lost/Missing ☐ Cuffs ☐ Contamination ☐ Out of Sequence ☐ Part Moved ☐ Crushing ☐ Countersink ☐ Off-set ☐ Drawing ☐ Heat Treat ☐ Cut Too Short ☐ Mislabelled ☐ Finish ☐ Wave/Twist in Tube ☐ Instructions Incomplete/Unclear ☐ Fit/Function ☐ Misread ☐ Marks/Chatter ☐ Drill Holes ☐ Misaligned/off center ☐ Turning Sequence ☐						OTHER : _____	

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[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: <u>134714</u> Part No. <u>0212-805-011</u> NCR No. _____		DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Cross tube ☐ Water Jet ☐ Engineering ☐ Machining ☐ Small Fab ☐ Prod. Eng. Coord. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☐ Composite ☒ Supplier ☐							
Date : <u>15.11.16</u>		Step #: <u>170</u>		QTY Effective : <u>①</u>			MRB (QSI042) Approval <u>A.P.</u>				
Description Work Order Deviation				Disposition				15.11.16			
Exposed fiberglass strands in various locations. P.C. Process				Sand and smooth cut, apply Hysol 934 mixed with fumed silica, sand smooth, re-apply finish.				Completed By <u>SVP</u> <u>15/11/17</u>			
								Lead hand / Supervisor Approval Verification DAS 9 9-89 <u>16-01-15</u>			
								QC/ QA Coordinator Approval <u>16/11/15</u>			
Root Cause Environment ☐ No Re-verification ☐ Design ☐ Operator ☐ Doc/Data ☐ Offset/Setup ☐ Equip/Tooling ☐ Supplier ☐ Handling/Pre ☐ Training ☐ Material ☐ Use for Testing ☐ Internal Transport ☐ Poor Information ☐ Tribal Knowledge ☐ Rushing ☐ LOA ☐ Product Improvement ☐ Substation ☐ Process Improvement ☐ Past Expiry Date ☐ ☒ Manufacturing Process Misidentified ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Temperature/Cure ☐ Power Loss/Surge ☐ Positioned Wrong ☐ Bending ☐ Set-up ☐ Folio/Program ☐ Outside Dimensions ☐ Centre Not Concentric ☐ BOM/Route ☐ Grain ☐ Over/Under tolerance ☐ Cracks ☐ Broken/Damage/Defect ☐ Weld ☐ Part Incorrect ☐ Crimp/Kink/Ripple/Wave ☐ Inspection Incomplete/Unqualified ☐ Wrong Stock Pulled ☐ Part Lost/Missing ☐ Cuffs ☐ Contamination ☐ Out of Sequence ☐ Part Moved ☐ Crushing ☐ Countersink ☐ Off-set ☐ Drawing ☐ Heat Treat ☐ Cut Too Short ☐ Misabeled ☐ ☒ Finish Wave/Twist in Tube ☐ Instructions Incomplete/Unclear ☐ Fit/Function ☐ Misread ☐ Marks/Chatter ☐ Drill Holes ☐ Misaligned/off center ☐ Turning Sequence ☐				OTHER : _____			

Work Order ID 134714

Thursday, July 16, 2015 3:15:45 PM

134714

Page 4

Item ID: D212-805-011 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Pod Modification
Start Date: 7/17/15 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 8/07/15 Req'd Qty: 1.00 ***1*** Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190		0.00							
190									
Small Fab	Memo	0.00							
Small Fab	1- Locate DT9669 jig on outside of base on pod as per dwg. ***Orientation and groove of jig as per dwg*** 2- Open holes and seal holes with cyanoacrylate glue as per dwg and seal exposed foam core with Hysol 956 and milled fiber A/R Hysol Batch: <u>mjs1666</u> exp. date : <u>15/16</u> A/R Milled fiber Batch: <u>m100859</u> 3- Allow resin to cure for min. 12HRS and remove excess.								<u>SmA</u> <u>15/11/16</u>
200	QC5- Inspect part completeness to step on W/O	0.00							
200									
QC	Memo	0.00							
Quality Control									<u>8</u> <u>15/11/23</u>

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: <u>134714</u> Part No. <u>12212-805-011</u> NCR No. _____		DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☒</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☒	Supplier ☐																																																	
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Large Fab ☐	Composite ☒	Supplier ☐																																																																							
Date : <u>15.11.18</u>		Step #: <u>190</u>		QTY Effective : <u>①</u>		MRB (QSI042) Approval <u>A.P.</u> <u>15.11.18</u>																																																																			
Description Work Order Deviation <u>CROSS Aluminum shims installed under 04172-041 BETWEEN FRAME & POO</u>				Disposition <u>ACCEPTABLE TO INSTALL SHIMS AS REQUIRED. USE 6061^{7075-T6} ALUMINUM. APPLY ALODINE & PRIME / PAINT. 1.0" x 1.0" DIM WITH Ø0.250 CTR HOLE. SHIM THICKNESS AS REQUIRED BETWEEN 0.340 - 0.460" THK. INCREASE LENGTH OF ANY BOLTS AS REQUIRED TO ENSURE FASTENER IS IN SAFETY</u>		Completed By <u>SMB</u> <u>15/11/19</u> Lead hand / Supervisor Approval Verification <u>S</u> <u>15/11/23</u> QC / QA Coordinator Approval <u>S</u> <u>15/11/23</u>																																																																			
Root Cause <table style="width:100%; border: none;"> <tr> <td style="border: none;">Environment ☐</td> <td style="border: none;">No Re-verification ☐</td> <td style="border: none;">Pressure/Forced ☐</td> </tr> <tr> <td style="border: none;">Design ☐</td> <td style="border: none;">Operator ☐</td> <td style="border: none;">Bending ☐</td> </tr> <tr> <td style="border: none;">Doc/Data ☐</td> <td style="border: none;">Offset/Setup ☐</td> <td style="border: none;">Centre Not Concentric ☐</td> </tr> <tr> <td style="border: none;">Equip/Tooling ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;">Cracks ☐</td> </tr> <tr> <td style="border: none;">Handling/Pre ☐</td> <td style="border: none;">Training ☐</td> <td style="border: none;">Crimp/Kink/Ripple/Wave ☐</td> </tr> <tr> <td style="border: none;">Material ☐</td> <td style="border: none;">Use for Testing ☐</td> <td style="border: none;">Cuffs ☐</td> </tr> <tr> <td style="border: none;">Internal Transport ☐</td> <td style="border: none;">Poor Information ☐</td> <td style="border: none;">Crushing ☐</td> </tr> <tr> <td style="border: none;">Tribal Knowledge ☐</td> <td style="border: none;">Rushing ☐</td> <td style="border: none;">Heat Treat ☐</td> </tr> <tr> <td style="border: none;">LOA ☐</td> <td style="border: none;">Product Improvement ☐</td> <td style="border: none;">Wave/Twist in Tube ☐</td> </tr> <tr> <td style="border: none;">Substation ☐</td> <td style="border: none;">Process Improvement ☐</td> <td style="border: none;">Marks/Chatter ☐</td> </tr> <tr> <td style="border: none;">Past Expiry Date ☐</td> <td style="border: none;">☒ Manufacturing Process</td> <td></td> </tr> <tr> <td style="border: none;">Misidentified ☐</td> <td style="border: none;">Past Due ☐</td> <td></td> </tr> </table>				Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Design ☐	Operator ☐	Bending ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Past Expiry Date ☐	☒ Manufacturing Process		Misidentified ☐	Past Due ☐		FAULT CATEGORY <table style="width:100%; border: none;"> <tr> <td style="border: none;">Temperature/Cure ☐</td> <td style="border: none;">Power Loss/Surge ☐</td> <td style="border: none;">Positioned Wrong ☐</td> </tr> <tr> <td style="border: none;">Set-up ☐</td> <td style="border: none;">Folio/Program ☐</td> <td style="border: none;">Outside Dimensions ☐</td> </tr> <tr> <td style="border: none;">BOM/Route ☐</td> <td style="border: none;">Grain ☐</td> <td style="border: none;">Over/Under tolerance ☐</td> </tr> <tr> <td style="border: none;">Broken/Damage/Defect ☐</td> <td style="border: none;">Weld ☐</td> <td style="border: none;">Part Incorrect ☐</td> </tr> <tr> <td style="border: none;">Inspection Incomplete/Unqualified ☐</td> <td style="border: none;">Wrong Stock Pulled ☐</td> <td style="border: none;">Part Lost/Missing ☐</td> </tr> <tr> <td style="border: none;">Contamination ☐</td> <td style="border: none;">Out of Sequence ☐</td> <td style="border: none;">Part Moved ☐</td> </tr> <tr> <td style="border: none;">Countersink ☐</td> <td style="border: none;">Off-set ☐</td> <td style="border: none;">Drawing ☐</td> </tr> <tr> <td style="border: none;">Cut Too Short ☐</td> <td style="border: none;">Mislabeled ☐</td> <td style="border: none;">Finish ☐</td> </tr> <tr> <td style="border: none;">Instructions Incomplete/Unclear ☐</td> <td style="border: none;">☒ Fit/Function</td> <td style="border: none;">Misread ☐</td> </tr> <tr> <td style="border: none;">Drill Holes ☐</td> <td style="border: none;">Misaligned/off center ☐</td> <td style="border: none;">Turning Sequence ☐</td> </tr> </table>				Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Countersink ☐	Off-set ☐	Drawing ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	Instructions Incomplete/Unclear ☐	☒ Fit/Function	Misread ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
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Work Order ID 134714

Thursday, July 16, 2015 3:15:45 PM

134714

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Item ID: D212-805-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Pod Modification

Start Date: 7/17/15 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 8/07/15 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210		0.00							
210									
Small Fab									
Small Fab									
	Memo	0.00							
	Install Radalt mounting plate assy as per dwg (Detail C) and bond doubler and shim with Sykaflex								
	A/R Sykaflex Batch: <u>M133407</u>								
	exp date: <u>2/16</u>								
220	QC5- Inspect part completeness to step on W/O	0.00							
220									
QC									
Quality Control	Memo	0.00							
230		0.00							
230									
Small Fab									
Small Fab									
	Memo	0.00							
	1- Using D4177-1 Radalt guard doubler to locate holes and spacing								
	Drill from outside of pod to ensure location doesn't affect ribs on base								
	2- Install parts seal and bond with sikaflex								
	A/R Sykaflex Batch: <u>M133407</u>								
	exp date: <u>2/16</u>								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			Completed By
VARIOUS AN					Lead hand / Supervisor Approval Verification
					QC / QA Coordinator Approval
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Thursday, July 16, 2015 3:15:45 PM

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[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: <u>134714</u> Part No. <u>D212-805-011</u> NCR No. _____		DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☒ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : <u>15.11.17</u>		Step #: <u>250</u>		QTY Effective : <u>①</u>		MRB (QSI042) Approval <u>A.P.</u> <u>15.11.17</u>			
Description Work Order Deviation <u>FINISHING PROCESS MISSING FOM ROUTES.</u>				Disposition <u>ACCEPTABLE TO PRIME INSIDE USING LE3440S AS LONG AS IT IS APPLIED OVER PREVIOUSLY PRIMED & SCUFFED SURFACE</u> <u>• OPEN PAR TO ADD STEP AND INDICATE LE3404S PRIMER FILLER</u> <u>PAR 15-475</u>				Completed By <u>Shops</u> <u>15/11/16</u> Lead hand / Supervisor Approval Verification <u>DAS</u> <u>9</u> <u>9-89</u> <u>16-01-15</u> QC / QA Coordinator Approval <u>DAS</u> <u>9</u> <u>9-89</u> <u>16-01-15</u>	
Root Cause Environment ☐ Design ☐ Doc/Data ☒ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ ☒ Drawing Finish ☐ Misread ☐ Turning Sequence ☐					
OTHER : _____									

Work Order ID 134714

Thursday, July 16, 2015 3:15:45 PM

134714

Page 7

Item ID: D212-805-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Pod Modification

Start Date: 7/17/15 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 8/07/15 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270		0.00							
270									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D212-601-142								
	Location: _____								
	PPP rev: _____								
280	QC21- Final Inspection - Work Order Release	0.00							
280									
QC	Memo	0.00							
Quality Control									

IX DAS 28 9-89 NOV 23 2015

ML5 15-11-23

ML5 15-11-23

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval				
Description Work Order Deviation				Disposition				Completed By			
								Lead hand / Supervisor Approval Verification			
								QC / QA Coordinator Approval			
Root Cause		FAULT CATEGORY									
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐					Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____											

Picklist Print

Page 1

Thursday, July 16, 2015 3:15:51 PM

Work Order ID: 134714

134714

Parent Item: D212-805-011

D212-805-011

Parent Item Name: Pod Modification

Start Date: 7/17/15

Required Date: 8/07/15

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A 10.09.29 new issue DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4173-9 *D4173-9* Pod Radalt Seal		Manufactured	No				Each	4.0000		1		BAS 27 9-89	
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				CA2				4					
					124819			2					
					62417			2					
D4175-041 *D4175-041* Pod Gps Doubler Assembly		Manufactured	No			130	Each	0.0000	1	1		BAS 27 9-89	
D4174-1 *D4174-1* Connector Plate		Manufactured	No			170	Each	0.0000	1	1		BAS 27 9-89	
D4174-3 *D4174-3* Connector Plate Doubler		Manufactured	No			170	Each	0.0000	1	1		BAS 27 9-89	

SEP 22 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐				
Date : _____		Step #: _____		QTY Effective : _____		MRB (QSI042) Approval
Description Work Order Deviation				Disposition		Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval
Root Cause		FAULT CATEGORY				
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	
		OTHER : _____				

Picklist Print

Thursday, July 16, 2015 3:15:51 PM

Work Order ID: 134714

134714

Parent Item: D212-805-011

D212-805-011

Parent Item Name: Pod Modification

Start Date: 7/17/15

Required Date: 8/07/15

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

170

Each

1,245.000

6

6

MS21042L3

NAS

Nut

27

9-89

Location

Loc Qty

Loc Code

FP001

393

M130922

393

GA

374

M131317

374

ST305

478

116549

12

126333

49

M128754

2

M132123

17

M132382

398

M13384

6

NAS1149D0363J

Purchased

No

170

Each

1,935.000

12

12

NAS1149D0363J

NAS

Washer

27

9-89

Location

Loc Qty

Loc Code

CA

569

m130799

569

GA

1098

m128429

134

m132677

964

ST269

268

m126319

7

m131618

1

m132317

260

M133031

12

SEP 22 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐			FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		
OTHER : _____					

Picklist Print

Thursday, July 16, 2015 3:15:51 PM

Work Order ID: 134714

134714

Parent Item: D212-805-011

D212-805-011

Parent Item Name: Pod Modification

Start Date: 7/17/15

Required Date: 8/07/15

Start Qty: 1.00

Required Qty: 1.00

AN3-5A	Purchased	No	170	Each	258.0000	6	6
--------	-----------	----	-----	------	----------	---	---

AN3-5A

Bolt

**

BAS
27
9-89

Location

Loc Qty

Loc Code

CA	
m129682	
GA	
m131420	

132
132
126
126

6

D4173-3	Manufactured	No	210	Each	0.0000	1	1
---------	--------------	----	-----	------	--------	---	---

D4173-3

Pod Radalt Doubler

B134824

**

BAS
27
9-89

D4173-7	Manufactured	No	210	Each	0.0000	1	1
---------	--------------	----	-----	------	--------	---	---

D4173-7

Radalt Shim

B134728

**

BAS
27
9-89

D4173-041	Manufactured	No	210	Each	0.0000	1	1
-----------	--------------	----	-----	------	--------	---	---

D4173-041

Pod Radalt Mounting Plate Assembly

B134729

**

BAS
27
9-89

AN3-12A	Purchased	No	210	Each	58.0000	12	12
---------	-----------	----	-----	------	---------	----	----

AN3-12A

Bolt

**

Location

Loc Qty

Loc Code

CA	
m129682	
GA	
m130566	

57
57
1
1

M13064

12

BAS
27
9-89

SEP 22 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	
OTHER : _____									

Picklist Print

Thursday, July 16, 2015 3:15:51 PM

Work Order ID: 134714

134714

Parent Item: D212-805-011

D212-805-011

Parent Item Name: Pod Modification

Start Date: 7/17/15

Required Date: 8/07/15

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

210

Each

1,245.000

12

12

MS21042L3

**NAS
27
9-89**

Nut

Location

Loc Qty

Loc Code

FP001

393

M130922

393

GA

374

M131317

374

ST305

478

116549

12

126333

49

M128754

2

M132123

17

M132382

398

M13334

12

NAS1149F0332P

Purchased

No

210

Each

2,176.000

24

24

NAS1149F0332P

**NAS
27
9-89**

Washer

Location

Loc Qty

Loc Code

GA

222

122063

222

ST260a

1861

m128401

6

m131026

80

m131697

1775

st268

93

123900

7

m130388

86

M13077

24

SEP 22 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

Thursday, July 16, 2015 3:15:52 PM

Work Order ID: 134714

134714

Parent Item: D212-805-011

D212-805-011

Parent Item Name: Pod Modification

Start Date: 7/17/15

Required Date: 8/07/15

Start Qty: 1.00

Required Qty: 1.00

AN3-6A Purchased No 230 Each 196.0000 4 4

AN3-6A

Bolt

**

BAS
27
8-89

Location

Loc Qty

Loc Code

ST338a

100

M131305

100

ST349

96

M132680

96

M133004

4

NAS1149F0332P

Purchased

No

230

Each

2,176.000

8

8

NAS1149F0332P

Washer

**

BAS
27
8-89

Location

Loc Qty

Loc Code

GA

222

122063

222

ST260a

1861

m128401

6

m131026

80

m131697

1775

st268

93

123900

7

m130388

86

M133077

8

SEP 22 2013

D4177-1

Manufactured

No

230

Each

2.0000

2

2

D4177-1

Radalt Guard Doubler

**

~~130978 x 2~~ SP
129028 x 2 15/9/24

Location

Loc Qty

Loc Code

MF

2

128028

2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
								QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Page 6

Thursday, July 16, 2015 3:15:52 PM

Work Order ID: 134714

134714

Parent Item: D212-805-011

D212-805-011

Parent Item Name: Pod Modification

Start Date: 7/17/15

Required Date: 8/07/15

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

230

Each

1,245.000

4

4

MS21042L3

Nut

BAS
27
9-89

Location

Loc Qty

Loc Code

FP001

393

M130922

393

GA

374

M131317

374

ST305

478

116549

12

126333

49

M128754

2

M132123

17

M132382

398

M133134

9

D3926-3

Manufactured

No

230

Each

1.0000

2

2

D3926-3

Wedge

BAS
27
9-89

Location

Loc Qty

Loc Code

ST517

1

127434

1

B134900

1

D4172-041

Manufactured

No

250

Each

0.0000

1

1

D4172-041

Pod Mounting Frame Assembly

80-005-3-8

Purchased

No

250

Each

14.0000

8

8

80-005-3-8

INSERT

BAS
27
9-89

Location

Loc Qty

Loc Code

ST563

14

M126140

14

8

SEP 22 2015

Thursday, July 16, 2015 3:15:52 PM

Shop Packet Print

Page 6

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____			

Picklist Print

Thursday, July 16, 2015 3:15:52 PM

Work Order ID: 134714

134714

Parent Item: D212-805-011

D212-805-011

Parent Item Name: Pod Modification

Start Date: 7/17/15

Required Date: 8/07/15

Start Qty: 1.00

Required Qty: 1.00

AN4-4A	Purchased	No	250	Each	362.0000	8	8
--------	-----------	----	-----	------	----------	---	---

AN4-4A

BOLT

Location

Loc Qty

Loc Code

FP001

24

m125709

24

ST325A

338

m129390

338

NAS1149F0432P	Purchased	No	250	Each	1,459.000	8	8
---------------	-----------	----	-----	------	-----------	---	---

NAS1149F0432P

WASHER

Location

Loc Qty

Loc Code

ST260a

1388

M131697

288

M132551

500

M132677

600

st268

71

M128995

63

M130388

8

BAS
27
9-89

BAS
27
9-89

SEP 22 2015

DQA: _____ Date: _____

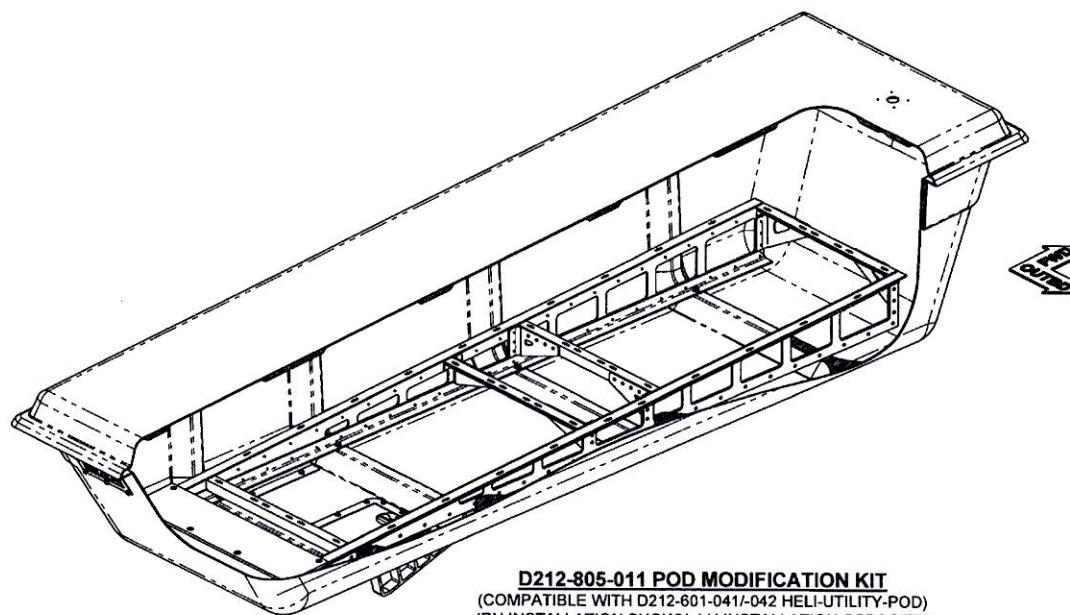


WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step # : _____		QTY Effective : _____			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								



D212-805-011 POD MODIFICATION KIT
(COMPATIBLE WITH D212-601-041/-042 HELI-UTILITY-POD)
(RH INSTALLATION SHOWN, LH INSTALLATION OPPOSITE)

NOTES:

- 1) MATERIAL: NONE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 20 lbs APPROX
- 8) ENSURE D4175-041 WILL CLEAR D2200-1 LID FOAM CORE.
USE DT9667 CUTOUT TEMPLATE TO FASTEN/BOND D4175-041 TO D2200-1 LID.
REMOVE FASTENERS AND DT9667 TEMPLATE ONCE COMPLETELY CURED.
- 9) FOR INSTALLATION OF D4172-041 FRAME AND 80-005-3-8 INSERTS:
 - 9.1) LOCATE D4172-041 FRAME INSIDE POD SO THE FASTENER HOLES ARE MORE OR LESS ON THE CENTERLINE OF EACH D2200-3 POD RIBS;
 - 9.2) TRANSFER MARK AND DRILL SAME SIZE DIAMETER AS THE INSERT SHAFT DIAMETER TO A MAXIMUM OF 1.250" DEEP;
 - 9.3) CLEAN OUT FOAM CORE $\phi 0.125$ " TO 0.250 " AROUND HOLE BETWEEN OUTER AND INNER SKINS;
 - 9.4) FOR EACH CAVITY, FILL ONE THIRD WITH "HYSOL EA394" OR EQUIVALENT EPOXY COMPOUND;
 - 9.5) INSTALL 80-005-3-8 INSERTS BY FILLING THE CAVITY WITH "HYSOL EA394" PER QSI 006 14.6 ENSURING INSIDE OF INSERTS ARE FREE OF POTTING COMPOUND;
 - 9.6) GRIND TO A SMOOTH SURFACE AS REQUIRED AFTER EPOXY HAS COMPLETELY CURED;
 - 9.7) TOUCH UP FINISH USING DUPONT HIGHBUILD PRIMER GREY #1104S OR #1144S.
- 10) TRANSFER DRILL HOLES IN POD AND D4177-1 DOUBLERS TO D3926-3 WEDGES PRIOR TO FASTENING D3926-3 TO POD.
- 11) SEAL EDGES OF ALL DRILLED HOLES AND CUTOUTS WITH CYANOACRYLATE GLUE (CRAZY GLUE)
- 12) WET INSTALL D3926-3, D4173-3/-7, D4174-1/-3, D4175-041, D4177-1 USING SIKAFLEX -241/-291 ADHESIVE
- 13) IT IS ACCEPTABLE TO USE LONGER AN4 BOLTS AND INSERT SHIMS AS REQUIRED BETWEEN THE POD RIBS AND D4172-041 FRAME.
MANUFACTURE 1.00" X 1.00" SHIMS TO REQUIRED THICKNESS FROM M6061T6S OR M6061T6B ALUMINUM.

ITEM	QTY. -011	P/N	DESCRIPTION
	X	D212-805-011	POD MODIFICATION KIT
12	1	2	D3926-3
	1	D4172-041	WEDGE
	1	D4173-041	POD MOUNTING FRAME ASSY
	1	D4173-3	POD RADALT MOUNTING PLATE ASSY
12	4	D4173-3	POD RADALT DOUBLER
12	5	D4173-7	RADALT SHIM
	1	D4173-9	POD RADALT SEAL
12	7	D4174-1	CONNECTOR PLATE
12	8	D4174-3	CONNECTOR PLATE DOUBLER
8	9	D4175-041	POD GPS DOUBLER ASSY
12	10	D4177-1	RADALT GUARD DOUBLER
9	11	8	80-005-3-8
	12	6	AN3-5A
	13	4	AN3-6A
	14	12	AN3-12A
13	16	8	AN4-4A
	17	22	MS21042L3
	18	12	NAS1149D0363J
	19	32	NAS1149F0332P
	20	8	NAS1149F0432P
13	21	A/R	N/A
			SHIM

RELEASED
2010-09-29

A	NEW ISSUE	MB	10.09.13
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.09.13		

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D212-805	REV. A
TITLE POD MODIFICATION KIT	SHEET 1 OF 5
SCALE NTS	
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D2200-1
POD LID

B4-2

8

A

4.25
REF

B

C6-3

7.50
REF

8

OUTBD

FWD

A5-2

D2200-3
POD BASE

SECTION A-A D8-2

E

A2-3

80-005-3-8 POTTED
INSERT
8 PL

9

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2010-09-29

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DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. D212-805	REV. A
MFG. APPR.			SHEET 2 OF 5
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SECTION C-C C3-2
LID NOT SHOWN

OUTBD

D

A6-3

10.38
REF

9

14.420
REF

9

21.630
REF

9

21.630
REF

9

10.813

2.88
REF

8.25
REF

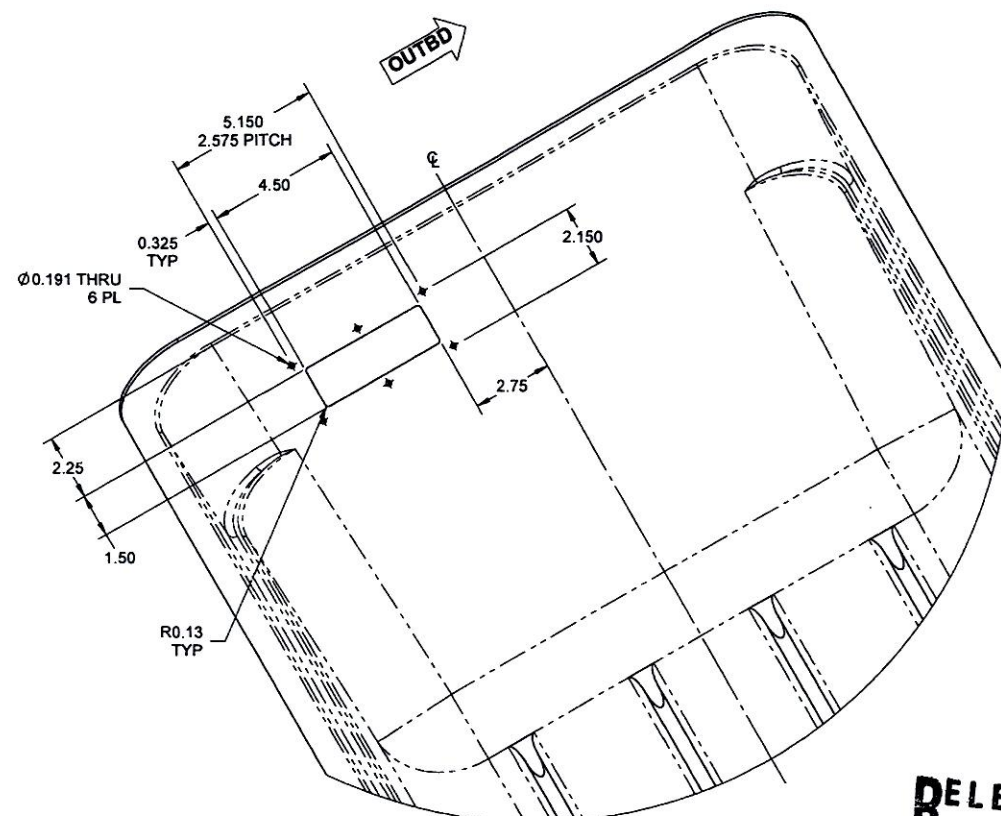
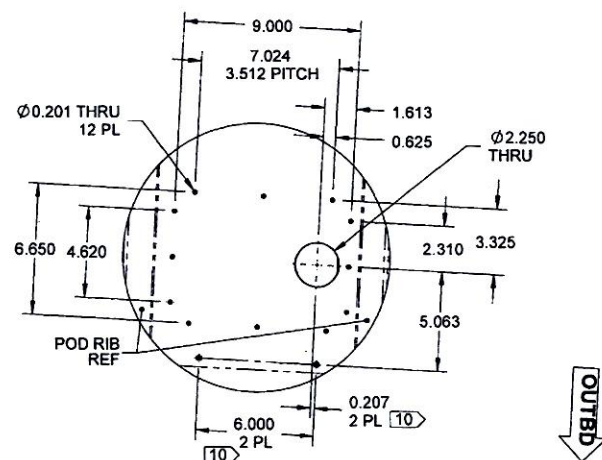
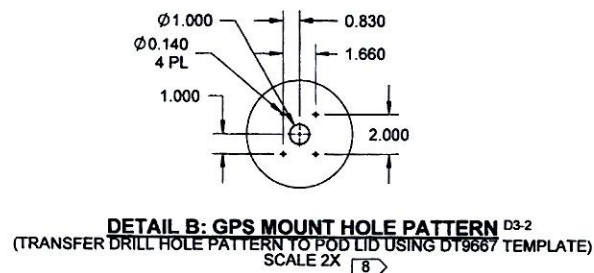
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MFG. APPR.		D212-805	SHEET 3 OF 5
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8

7

6

5

4

3

2

1

D

C

B

A

D2200-1
POD LID

B3-4

F

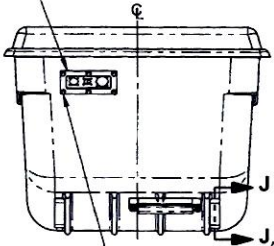
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G A7-4

OUTBD

D4174-1 CONNECTOR PLATE, FS
D4174-3 CONNECTOR PLATE DOUBLER, NS

12

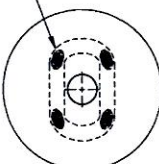
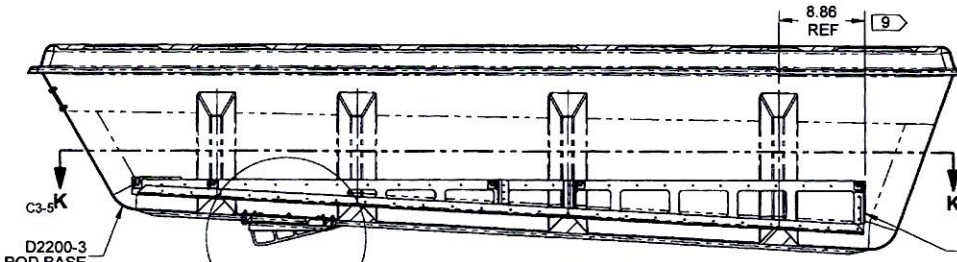


OUTBD

AN3-5A BOLT
NAS1149D0363J WASHER, 2X
MS21042L3 NUT
6 PL

J A6-5

12

D4175-1
POD GPS DOUBLER, FSDETAIL G
SCALE 2X D1-4

FWD

8.86
REF

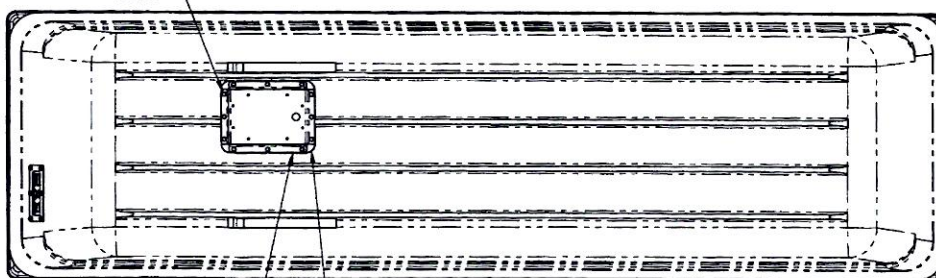
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C3-5
D2200-3
POD BASED4172-041 MOUNTING
FRAME 9

SECTION F-F D6-4

AN3-12A BOLT
NAS1149F0332P WASHER, 2X
MS21042L3 NUT
12 PL

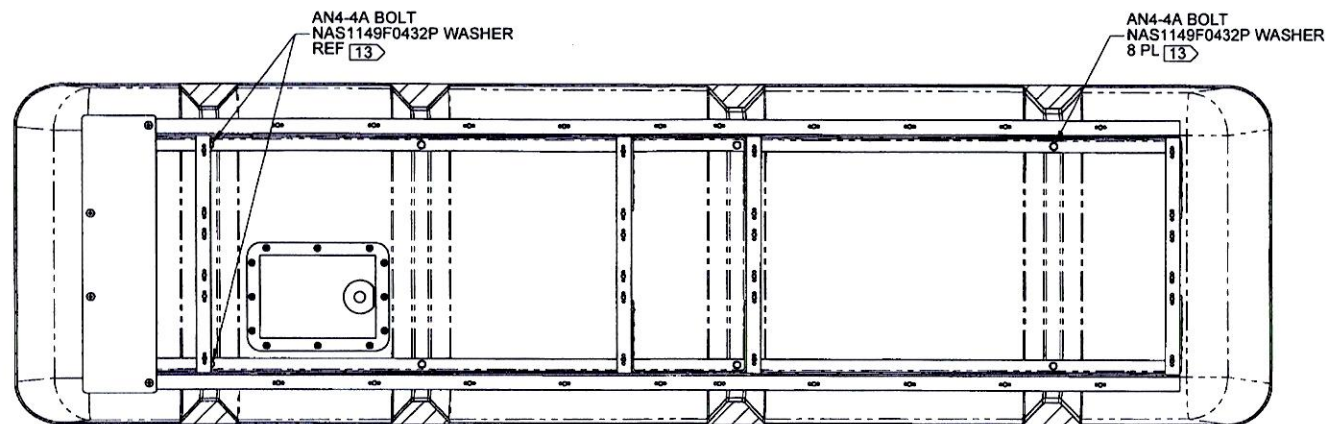
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D4173-041 RADALT
MOUNTING PLATE ASSY
D4173-9 SEAL
REFD4173-7 RADALT SHIM
REF

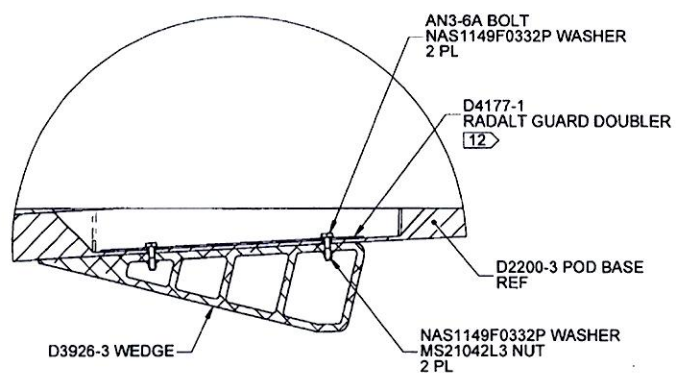
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2010-09-29
D4174

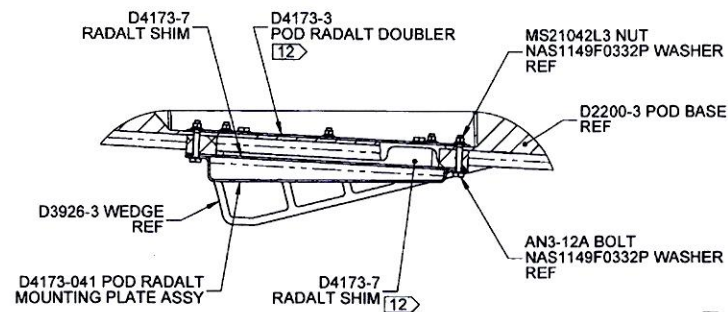
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SECTION K-K: D4172-041 POD FRAME INSTALLATION C5-4
SCALE 1.5X



SECTION J-J: RADALT GUARD INSTALLATION B7-4
SCALE 3X, 2 PL PER POD 10



DETAIL H: RADALT MOUNTING PLATE INSTALLATION B4-4
SCALE 3X

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2010-09-29

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MFG. APPR.			D212-805	SHEET 5 OF 5
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